Alzheimer's Assault

■ Last year, researchers thought they had finally created animal models they could use to study pathological changes that cause brain degeneration in Alzheimer's patients. Now the good news seems to have gone sour: One of the leading models, described in *Nature* on 12 December 1991, is about to be retracted and will soon be the subject of an NIH misconduct inquiry. Coincidentally, some researchers have objected to a second animal model on technical grounds—this one published in the 19 July 1991 issue of *Science*.

In the *Nature* paper, three researchers reported the creation of transgenic mice that not only produced excess beta-amyloid, a protein implicated as a possible cause of Alzheimer's, but also exhibited the major brain changes symptomatic of human Alzheimer's disease. Now, says Gerald Higgins, an NIH pathologist and one of the co-authors, that paper will be retracted because his group has been unable to confirm the brain changes in additional mice. But Higgins dismisses rumors now sweeping the Alzheimer's community that his work might have been faked: "Let me assure you there's no misconduct involved."

In an independent development, the 13 March issue of *Science* will carry a technical comment challenging the interpretation of a transgenic mouse model reported last summer by Connecticut researcher Dana Wirak and his colleagues. The challengers argue that Wirak's group mistakenly attributed naturally occurring, Alzheimer's-like brain changes in their mouse strain to the effects of the transgene. In an accompanying letter, the Wirak group concedes that possibility.

Unified Team to Aid SSC

■ Accountants at the Department of Energy (DOE) will soon be doing some sophisticated calculations to show credit for another foreign contribution to the Superconducting Super Collider (SSC). William Happer Jr., director of DOE's Office of Energy Research, told a congressional subcommittee last week that a laboratory at Novosibirsk in the former Soviet Union has agreed to manufacture nonsuperconducting magnets for the SSC's Low Energy Booster, the first of three "booster" rings that will accelerate protons to an energy of 20 MeV.

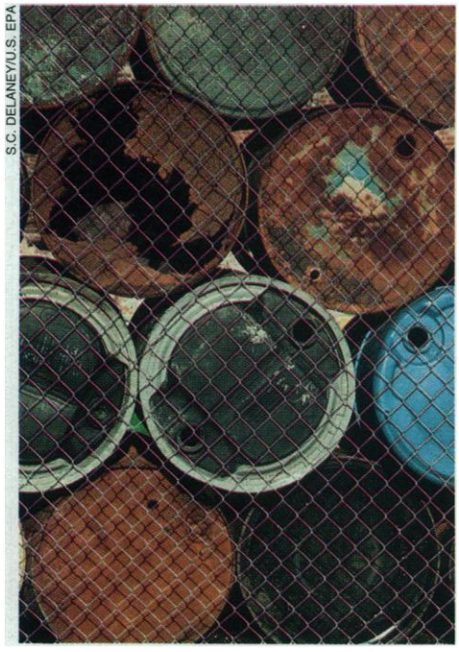
While DOE will pay the former Soviet lab for material, the agency's accountants will treat the "value added" by the scientists' labor as a foreign contribution. Happer estimated that dollar value as "many tens of millions...more than $10 million and less than $200 million."

EPA Zapped on Radiation Standards

■ Long accused by environmentalists of drawing up questionable risk standards, the Environmental Protection Agency (EPA) now faces criticism from a new front: A draft report from an advisory panel warns that unless the agency develops a more "coherent" policy for acting on radiation and chemical risks, its decisions could lose the support of the scientific community.

The problem, according to the report by EPA's Radiation Advisory Committee, stems from the way agency staffers assess radiation risks. Because radiation analyses must account for natural background radiation—a factor with no direct analogue in the more familiar risk analysis of chemicals—radiation experts tend to set looser exposure standards than their colleagues in chemical risk assessment. But in some recent cases involving radon and certain radionuclides, EPA regulators applied the more stringent chemical standards instead, leading to widespread disagreement among experts over whether remediation is needed in these cases.

While the report mentions a few general alternatives to the existing system, it stops short of recommending a solution to the problem, and instead hands that burden back to EPA policy makers. The panel expects to present a polished version of the draft report at the April meeting of EPA's Science Advisory Board.



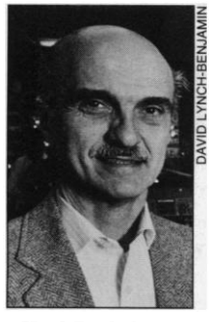
S.C. DELANEY/U.S. EPA

EPA is under fire for applying chemical risk standards to radiation hazards.

To B (Factory) or Not to B Is No Longer a Question for U.S. Physicists

■ Plans for a "B factory"—a $100 million to $180 million high-energy physics experiment that attracted a lot of attention a year ago—won't be taking shape any time soon. In a 9 January letter, officials at the Department of Energy (DOE) and the National Science Foundation (NSF) pulled the plug on an interagency review of proposals submitted by Cornell University and the Stanford Linear Accelerator Center (SLAC), explaining that the "bleak outlook" for both agencies' research budgets has forced them to postpone consideration of the project until at least 1997.

Burton Richter



DAVID LYNCH-BENJAMIN

Karl Berkelman

The decision is a blow to the competing Cornell and SLAC teams, both of whom have drawn up plans for electron accelerators capable of producing billions of B mesons. Such machines would enable physicists to explore fundamental questions about "CP violation," a phenomenon thought to explain why the universe contains more matter than antimatter.

Although not entirely unexpected, the decision concerns physicists because of the strict conditions DOE and NSF have imposed for reconsidering the issue. To revive the B factory, DOE's High Energy Physics Advisory Panel must back it forcefully, perhaps at the expense of another research program. Furthermore, DOE and NSF are willing to reconsider only if no other B factory is under development elsewhere—and Japan has recently expressed interest in building its own machine.

B factory proponents aren't yet ready to abandon their hopes, however. SLAC director Burton Richter has urged his experimentalists to lobby DOE, and Cornell's Karl Berkelman expresses personal hope that "things could change."

EDITED BY DAVID P. HAMILTON